

1 reconsidered in view of the remarks which follow, that each of the
2 presently pending claims be allowed, and that the application be
3 passed to issue.

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5 **REMARKS**

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9 **The Rejection of Claims 1-5 and 6-12 Under 35 U.S.C. 103**
10 **over Bruce (US Pat. #6,205,719) In View Of Bruce (US Pat.**
11 **No. 5,862,637)**

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15 1. Claims 1-5, and 6-12 were rejected under 35 U.S.C. 103 as being
16 unpatentable over Bruce US Pat. #6,205,719 (hereafter '719) in view
17 of Bruce US Pat. # 5,862,637 (hereafter '637). Note that both of these
18 patents were invented by the applicant of the present invention.
19 Reconsideration and withdrawal of this rejection is respectfully
20 requested because claims 1-5 and 6-12 recite novel structure
21 resulting in new and unexpected advantages, and thus distinguish
22 physically and operationally over the '719 and '637 references.

1 Neither the '719 nor the '637 reference disclose, teach, claim or
2 suggest a roof-screen system as disclosed and claimed in the present
3 application for supporting a roof screen on a roof, where a plurality
4 of frame elements of round galvanized steel tubing are configured as
5 separate frames and include a front element, a bottom element, and
6 a diagonal brace element. The present invention also discloses and
7 claims a plurality of base supports operably secured to the frame
8 elements, sleeve connector means for connecting the plurality of
9 frame elements; and a plurality of support means for supporting a
10 plurality of face panels to the front element of the separate frames.
11 Accordingly, reconsideration and withdrawal of the rejection of
12 claims 1-5 and 6-12 is respectfully requested.

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15 2. Neither the '719 nor '637 references disclose, claim or teach the
16 use of tubular frame elements--claimed in claim 1 as ..."frame
17 element of round galvanized steel tubing...". In the '719 reference
18 which is cited, the frame members are beam shaped and numbers
19 212 and 204 in the drawing are the same part, only in a different
20 orientation as explained in the '719 reference (col. 3 lines 25-35).

1 3. In fact, the roof-screen system disclosed and claimed in the '719
2 reference cannot use tubing for the framing members because the
3 beam shaped extrusion includes a center hole that is the entire
4 length of the extrusion so wherever the beam is cut, the hole is still
5 there to receive the anchor bolt for the cap 202. If tubing were used,
6 the cap would not be anchored, therefore, the beam shaped extrusion
7 is both a critical and essential part of the '719 reference. Accordingly,
8 the '719 reference teaches away from using tubular frame elements,
9 and neither alone or in combination with the '637 reference
10 anticipate nor render obvious the present invention as claimed.
11 Accordingly, reconsideration and withdrawal of the rejection of
12 claims 1-5 and 6-12 is respectfully requested.

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14 4. The present application discloses and claims a system where
15 tubular frame elements are used and end connectors 28 slip over the
16 tubing and are attached with screws through the side of the sleeve.
17 The new and unexpected advantage of this is that tubing is stronger
18 in regards to lateral bending than a beam shaped element. In order
19 for a beam shaped extrusion to work properly, it needs to be very
20 thick and large to avoid lateral bending when wind pressure is
21 exerted on the roof screen. This results in expensive and very heavy
22 material. The present application, by using tubular frame elements

1 results in stronger tubing, which is lighter in weight, and less
2 expensive.

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4 5. It was stated in the Office Action, that the three components of the
5 "knuckle assembly" in the '719 reference (cap 202, yoke 208 and
6 clamp 210), are the same as the components claimed in claims 3 and
7 8 of the present application. Reconsideration and withdrawal of this
8 rejection is respectfully requested because base connector 26, cannot
9 reasonably be compared to the knuckle assembly 200 of the '719
10 reference, as the base connector of the present invention is not even
11 used to attach the end of one tube to the middle of another tube.

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13 6. Further, end connector 28, of the present application, cannot
14 reasonably be compared to clamp 210 or the '719 reference. End
15 connector 28 is a one piece fitting that screws onto the end of a tube
16 to allow the tube to attach to other fittings. In the '719 reference,
17 clamp 210, is simply a clamp. Its use and purpose is to mate with
18 yoke 208, to form a compression around the beam extrusion.

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20 7. It was also argued that field connector 30 (claims 3 and 8), of the
21 present application is comparable to beam extrusion 212 and bolt
22 214 of the '719 reference. It is respectfully submitted that the field

1 connector of the present invention, as disclosed and claimed, is a
2 one-piece sleeve that slips over the tubing and bolts through the
3 side when in position, rather than the clamping like mechanism of
4 beam extrusion 212 of the '719 reference.

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6 8. The '719 reference connects one frame beam to another by a 3-
7 part assembly consisting of the cap 202, yoke 208, and claim 210.
8 This system clamps the parts together around the frame using
9 compression to secure it. It also maintains a permanent pivot point
10 with pin 206 which never gets tightened. The present invention, uses
11 tubular frame elements and a two part assembly consisting of end
12 connector 28, and field connector 30, that slips over the tubing and
13 attaches mechanically with a series of screws through the sides of
14 the part into the tubing. The pivot point is permanently tightened
15 with a bolt and nut 45. The present invention eliminates an extra
16 part and provides both a stronger and less expensive system with
17 tightened pivot points, than either the '719 or 637 reference, either
18 alone or in combination. Accordingly, reconsideration and withdrawal
19 of the rejection of claim 1-5 and 6-12 is respectfully requested.

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21 9. As noted above, neither '719 reference nor the '637 reference,
22 disclose, teach or claim the use of a tubular frame, and as discussed

1 above, actually teach away from the use of a tubular frame. Further,
2 it was stated in the office action that "tubular frames are old and
3 very well known in the art". This is incorrect, as there is no
4 disclosure, teaching or claim whatsoever in any prior art showing the
5 use of tubular frames in roof-screen systems. In fact, as discussed
6 above, the two closest references, the '719 and the '637 reference
7 specifically teach away from the use of tubular frame elements.

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9 10. Regarding the rejection of claim 11, as it depends from
10 independent claim 6, which is clearly patentable (all of the
11 arguments given above are incorporated herein by reference), it is a
12 fortiori patentable. Further, since neither the '719 nor the '637
13 reference disclose, teach or suggest the use of frame elements which
14 are tubes, it is independently patentable as well. Accordingly,
15 reconsideration and withdrawal of this rejection is respectfully
16 requested.

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19 11. Regarding the rejection of claim 12, as it depends from
20 independent claim 6, which is clearly patentable (all of the
21 arguments given above are incorporated herein by reference), it is a
22 fortiori patentable. Further, since neither the '719 nor the '637

1 reference disclose, teach or suggest the use of frame elements which
2 are galvanized material or tubes, it is independently patentable as
3 well. Accordingly, reconsideration and withdrawal of this rejection is
4 respectfully requested.

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8 12. Regarding the rejection of claim 2, 7, as they depend from
9 independent claim 1, and 6, which are clearly patentable (all of the
10 arguments given above are incorporated herein by reference), they
11 are a fortiori patentable as well. Further, since neither the '719 nor
12 the '637 reference disclose, teach or suggest the use of sleeve
13 connectors they are independently patentable as well. Accordingly,
14 reconsideration and withdrawal of this rejection is respectfully
15 requested.

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18 13. Regarding the rejection of claim 4 and 9, as they depend from
19 independent claim 1, and 6, which are clearly patentable (all of the
20 arguments given above are incorporated herein by reference), they
21 are a fortiori patentable as well. Further, since neither the '719 nor
22 the '637 reference disclose, teach or suggest the use of a plurality of

1 base supports comprise of a base plate and base flashing, they are
2 independently patentable as well. Accordingly, reconsideration and
3 withdrawal of this rejection is respectfully requested:

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5 14. Regarding the rejection of claim 5 and 10, as they depend from
6 independent claim 1, and 6, which are clearly patentable (all of the
7 arguments given above are incorporated herein by reference), they
8 are a fortiori patentable as well. Further, since neither the '719 nor
9 the '637 reference disclose, teach or suggest the use of a plurality of
10 T-shaped base supports. they are independently patentable as well.

11 It is noted that base supports 24 of the present application and the
12 "footers" of the '719 reference are very different in construction,
13 operation, utility and effect. The "footer" of the '719 reference is
14 round as has a threaded hole in the top of the tubular shaped
15 stanchion that receives a bolt that is inserted through the top of the
16 cap 202, that is part of the knuckle assembly 116. This bolt through
17 the top of the knuckle assembly leaves the footer assembly
18 vulnerable to leaks. The present invention, by contrast, bolts through
19 the side of the base support stanchion so it doesn't have standing
20 water and consequently will not leak. Moreover, the '719 reference
21 discloses and claims the connection between the footer and the frame
22 "pinned". This means that it can pivot and move around the hinge pin

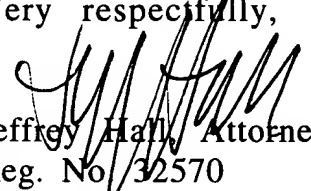
1 206 under wind load. This pinned condition creates a structural
2 vulnerability with the attachment of the footers to the roof structure.
3 Because they are allowed to pivot, it creates a weak axis condition at
4 the connection of the base plate 308, and the roof structure. This is a
5 significant limitation of the '719 reference, as the weak condition of
6 the axis renders the system useless under even relatively low wind
7 loads. Contrast this with the present invention, where the connection
8 between the base connector fin 44, and the base cap fin 39, is a solid
9 fixed connection, and has no movement under wind load. This results
10 in the front base support, the rear base support, and the horizontal
11 tube to be locked together, eliminating the weak rocking potential at
12 the connection of the base plate 25, to the roof structure. The new
13 and unexpected result is a stronger system that can withstand higher
14 wind loads, is lighter, and less expensive to manufacture and install.
15 Accordingly, reconsideration and withdrawal of this rejection is
16 respectfully requested.

18 Conclusion

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20 15. For all of the reasons given above, this application respectfully
21 submitted to contain claims which define a novel, patentable, and

1 truly valuable invention. Hence allowance of this application is
2 respectfully submitted to be proper and is respectfully solicited.

3 Very respectfully,

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24 Jeffrey Hall